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Agriculture in the Turbulent Middle East
Are World Eating Habits Changing?
How Denmark Dresses Its Poultry
Booming Economy of Rhodesia and Nyasaland

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FOREIGN AGRICULTURE

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To report and interpret world agricultural developments.

Differences in Diets

The Ceylon dock worker who used to carry a bowl of rice for his midday meal is now likely to have a couple of pieces of bread in his pocket. Bread instead of rice may be in the lunch pail of today's Japanese student. Dehydrated milk is now nourishing people in many global areas where it has never appeared before.

Hungry people will eat what they can get. They can't be choosy. But when they have money in their pockets and have a choice of different types of foods—a situation that is becoming more common in the world today—they are taking another look at their so-called traditional eating habits.

The result? World eating habits are changing. Here in the United States, as pointed out on pages 6 and 7 of this issue, we are eating nearly twice as much, on a calorie basis, as we did a half century ago. Yet, the per capita consumption of grains and potatoes has dropped 40 percent, while consumption of "protective" foods has increased remarkably.

As world standards of living rise, people everywhere will want more and better foods. This natural tendency takes on great importance to the United States as we push expansion of exports of our farm products. Foreign consumers know what they want. Let's give them what they want: quality products, packaged properly, and priced right. Everyone gains from higher exports of U. S. farm products.

Let's be easy to buy from!

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Photo by Henry C. List

Iranian farmer travels along a country road toward the marketplace. Agriculture's role in the developing Middle East is highly important, for roughly three-quarters of the people there are farmers and all the countries of the area depend on agriculture for stability and prosperity of their economies.

Agriculture's Role In the Turbulent Middle East

By AFIF I. TANNOUS
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After several centuries of decline, the Middle East is on the march again. Since World War II, this strategic region has been undergoing drastic changes and upheavals in the political, social, and economic spheres of life. These changes have culminated in the current state of internationally dangerous tension, but they offer promising potentials as well.

Not yet fully appreciated is the major role agriculture has played and will continue to play in the situation. Agricultural developments here are basic and conditioning; primarily on them depend the prosperity and stability of the national economies, and with them are tied up directly the lives of over 70 percent of the people.

Furthermore, developments in agriculture have been moving so rapidly as to have internationally unsettling implications. In this situation the agricultural and other policy interests of the United States are heavily involved.

Since the dawn of human history, Middle Eastern man has applied himself to cultivating the soil, depending primarily on its produce for a living. Perhaps earliest of all men, he developed the art of growing plants and raising livestock.

On this secure agricultural foundation flourished the great ancient civilizations of the area. And this early heritage of material and ideas flowed into the great stream of Western culture that has nourished American technology and society. The Middle East has given us alfalfa, wheat and barley, the date palm and the olive tree, superior varieties of figs, grapes, and stone fruits, the Angora goat and the Arab horse, and even some basic irrigation techniques.

Subsequently, Middle Eastern agriculture suffered a period of decline and stagnation. The extensive irrigation schemes of the great river valleys were neglected; soils eroded and deserts closed in; the farming profession was degraded; an inadequate system of land tenure became firmly established—destructive of both the land and the cultivator's private initiative; and standards of achievement and living declined to levels of mere subsistence.

In the general national awakening that followed World War I the region made some promising beginnings in agricultural improvement. Progress was relatively slow until World War II; its tremendous impact, still felt, has sent the Middle East rapidly along the road of national emancipation and economic development.

That agriculture must take the lead in development has been recognized, and all Middle Eastern countries are determined to realize the promising potentials it offers. Western technology, especially that of the United States, reaching the area through institutions of learning, trade, credit organizations, oil revenues, and technical assistance

programs, has been a dynamic factor. As a result, Middle Eastern agriculture has entered a tremendously productive era, with the promise of large-scale prosperity. But there is also the challenge of difficult problems relating to sound social and economic development, international trade, and foreign policy. The wrong combination of these factors could produce an explosive situation with repercussions reaching far beyond the scope of agriculture. In fact, such a situation is actively in the making.

Every country of the region (Egypt, the Sudan, Israel, Jordan, Lebanon, Syria, Iraq, Iran, Turkey, Saudi Arabia, and Yemen) has been straining to expand its crop area (by irrigation-drainage schemes and the use of machinery) and to improve its yields (by improved techniques and practices). Thus Turkey was able to increase the average production of its leading crops between 1946-50 and 1951-55 as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Rice Mil. lb.	Cotton Thous. bales*	Tobacco Mil. lb.
1946-50	139	79	175	343	206
1951-55	235	138	292	636	226

* Equivalent bales of 500 pounds gross.

These are phenomenal achievements indeed for such a short period—and even more significant when compared with a population increase of only about 2 percent annually.

During the same period Iran's average crop production increased:

	Wheat Mil. bu.	Barley Mil. bu.	Rice, rough Mil. lb.	Cotton Thous. bales*
1946-50	70	36	862	92
1951-55	77	37	937	216

* Equivalent bales of 500 pounds gross.

Iraq moved ahead significantly in crop production as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Rice, rough Mil. lb.	Dates Thous. sh. tons
1946-50	15	31	604	340
1951-55	22	36	596	326

Syria also increased its production, as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Cotton Thous. bales*
1946-50	22	11	55
1951-55	25	11	281

* Equivalent bales of 500 pounds gross.

Egypt, with a population close to 23 million—about the same as that of Turkey—and heavily dependent on agriculture, is severely limited in its crop area, to about 6 million acres irrigated from the Nile waters. The rest of the country (about 97 percent of the land area) is desert. Yet by means of intensive reclamation and cultivation and the diligent application of its abundant manpower to the land, Egypt has increased crop production (with the exception of rice) as follows:

	Wheat Mil. bu.	Corn Mil. bu.	Rice, rough Mil. lb.	Sugar Thous. sh. tons	Cotton Thous. bales*
1946-50	42	54	2,616	193	1,590
1951-55	52	66	1,859	291	1,661

* Equivalent bales of 500 pounds gross.

The other countries of the area have established similar plans and patterns to increase agricultural production, with varying success.

What repercussions has this agricultural revival had in international trade? To what extent have the principal gains in production been absorbed by increased internal consumption, and to what extent have they made additional contributions to world markets? A look at the following figures should give a reliable indication of the trend in this respect:

Turkey's exports increased as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Cotton Thous. bales*	Tobacco Mil. lb.
1946-50	1.5	1.6	139	111
1951-55	15.5	4.4	331	137

* Equivalent bales of 500 pounds gross.

During the same period, Iran expanded its exports with respect to two commodities:

	Rice, milled Mil. lbs.	Cotton Thous. bales*
1946-50	46	33
1951-55	97	138

* Equivalent bales of 500 pounds gross.

The average exports of Iraq increased as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Dates Thous. sh. tons
1946-50	0.5	9.9	221
1951-55	1.3	14.7	258

Syria increased its exports as follows:

	Wheat Mil. bu.	Barley Mil. bu.	Cotton Thous. bales*
1946-50	3.2	0.6	—
1951-55	4.7	7.6	236

* Equivalent bales of 500 pounds gross.

In contrast, Egypt's two leading exports declined as follows:

	Rice, milled Mil. lb.	Cotton Thous. bales*
1946-50	548	1,584
1951-55	246	1,320

* Equivalent bales of 500 pounds gross.

At the same time its wheat imports increased from 11.8 million to 22 million bushels.

The citrus industry of Israel is steadily building up toward the high prewar levels of production and exports. In 1954 over 8 million boxes were exported.

These highlights indicate what has been achieved so far. More significant still is what may happen in the next decade or two; for indications are strong indeed that the present wave of accelerated agricultural development has not spent itself. In fact, it is still gathering momentum in some of the countries.

Iraq, with a population of 5 million, has embarked upon a long-range program for developing its tremendous land resources. It has earmarked, by law, 70 percent of its huge oil revenues for large-scale developmental projects. These are mainly agricultural, including flood control and irrigation. By March 1956 two such projects had been concluded—one on the Tigris and another on the Euphrates, above Baghdad. Ultimately the country could increase its crop area from the current 6 million acres to 15 million or 20 million.

Under the terrific pressure of a large, rapidly increasing population on a limited area of productive land, Egypt has resolved on a daring, major operation—the great scheme on the Nile in upper Egypt for irrigation and power, known as the High Aswan Dam. The total cost is estimated at $1.3 billion, and the expectation is that some 2 million acres will be put under irrigation, as a result.

South of Egypt lies the Sudan,

another Arab country with Middle Eastern ties and orientation, although its extensive outlying areas reach into the heart of Africa. Soon after gaining full independence for their country, Sudan's energetic leaders turned their thoughts to developmental plans, with primary emphasis on agriculture. They have begun discussions with Egypt regarding the expanded use of the Nile water, which runs through both countries. Projects actually under construction, or planned, are expected to put some 3.5 million acres under irrigation within the next 15 years, in addition to the present 2 million.

Syria's agricultural potential is next to that of Iraq in magnitude. Drainage and irrigation schemes, under construction or in the planning, will put extensive areas of fertile land under crops. The waters of the Orontes River in the plains of Homs and Hama, those of the Euphrates between Aleppo and Mayadeen near the Iraqi frontier, and those of the Khabour and its tributaries in the famous Jezira Plain in the northeast provide abundant possibilities.

Turkey, Iran, Lebanon, Jordan, and Israel each has made careful appraisals of its land and water resources and embarked upon projects for their progressive development.

This is indeed a highly promising state of affairs; but some major problems tend to obstruct the attainment of these desired objectives and to frustrate those trying to carry them out. From this situation arises in part the instability of the Middle East, which could lend itself to explosion, unless effective solutions are applied.

On top of the list, perhaps, is the normally complex problem of trade. What to do with the rapidly increasing agricultural output is fast becoming a burning question for each one of these countries. With the outstanding exception of Egypt and a few small countries, internal consumption, *at the current levels of living*, comes nowhere near taking care of the expected increases in production. Furthermore, agriculture is the region's major source of national wealth, and its traditional trade with the rest of the world has depended primarily on certain specialized crops—for instance, cotton and rice from Egypt; oriental tobacco, dried fruits, and nuts from Turkey; citrus from Lebanon and Israel; dates from Iraq; olive oil from Syria; and gum and cotton from the Sudan.

With their needs for foreign capital goods and consumer goods increasing at unprecedented rates in recent years, the countries of the Middle East find themselves depending more heavily than ever before on increased agricultural output to provide the necessary foreign exchange. As a result they have maintained or expanded their traditional export commodities, and some countries have developed new ones: Turkey, Iran, and Syria are producing cotton for export; Lebanon, apples; and Turkey and Syria, wheat. But most of these commodities are in great surplus in world markets; hence the difficult problem for all concerned, including the United States, and the critical dilemma for the aspiring Middle East, anxiously bent upon developing its resources.

The second major problem is less tangible than that created by trade factors and forces, and consequently more difficult to attack. It is the problem of securing large-scale and long-range development on a sound economic basis—of balancing and integrating growth in various sectors of the national economy; of making sure that agricultural output will move in unison with complementary industry; of planning and diversifying crop production in response to the long-range demands of internal and world markets; of resisting the compelling temptation to achieve rapid development by means of wholesale borrowing of advanced technology from abroad; and of attaining the necessary technical competence, and building up the basic institutional organization for a dynamic, self-perpetuating agricultural development.

Awareness of the problem is evident in varying degrees within the region, to be sure, and some firm steps have been taken. Among these are establishment of national development boards in the various countries in recent years, increasing efforts aimed at the training of personnel abroad and at home, and the expansion of agricultural education. But the problem is far from being solved, and it may grow as a result of the large-scale development schemes mentioned above. Here, one can find at least a partial explanation for the current economic difficulty in Turkey, the early frustrations of the Seven-Year Plan in Iran, the precarious state of the Helmand River Scheme in Afghanistan, and the almost catastrophic failure of the too rapidly developed cotton crop in Syria a few years ago.

The third outstanding problem arises from the sharp cleavage in the traditional social-economic organization of the Middle East.[1] On the one side is the very small minority of the elite—educated and articulate, in control of the economy, and in the position of national leadership. On the other is the very large majority of the people, mainly agricultural folk who are mostly illiterate and economically insecure, and exist at subsistence levels. The gap between the two is wide; the region lacks the stabilizing influence of a substantial middle class. This state of affairs varies in degree from country to country, but is in general a common heritage from the remote past.

In response to the serious economic and national implications of this problem, enlightened leadership within the region has striven to find solutions. From the agricultural angle the basic question has been how to develop the human aspect along with the physi-

[1] With the exception of Israel, which has an altogether different background.

(Continued on page 16)

Is the World Changing Its Eating Habits?

By ERAL O. POLLOCK
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PEOPLE'S EATING HABITS are never static; they keep changing—slowly, sometimes almost imperceptibly. But variations in normal food consumption patterns have decisive effects on world agricultural production and trade, and those who deal in agricultural commodities must reckon with them.

Except in the United States, there are few statistics on changes in world food consumption. But a glance at what has occurred in the United States since the early 1900's shows how vital these changes can be. While Americans are eating nearly as much in terms of calories as they were 50 years ago, the per capita consumption of grain products and potatoes has dropped about 40 percent. At the same time, the per capita consumption of "protective foods" has increased: eggs by over 40 percent, green vegetables 60 percent, citrus fruit and tomatoes 80 percent, and meat, poultry, and fish by 2 percent.

Changes are also taking place in other parts of the world. The Ceylon dock worker who used to carry a bowl of rice for his midday meal is now apt to have a couple of pieces of bread in his pocket. The rice bowl has also been supplemented by bread in the Japanese child's school lunch. And in many heavily populated countries where there was never enough milk for the children, dehydrated nonfat milk is gradually being introduced.

Historically, changes in eating habits follow one general trend. At a low income level, people eat mostly cereals, starchy roots, and tubers, which are the cheapest source of calories. As their income rises, they consume fewer of these foods and eat more pulses, animal products, vegetables, and fruits. (See chart on back cover.) This has always been the case, and there is little likelihood that this trend will change. But how fast this trend is effected depends upon certain forces that the rapid changes in the postwar situation have tended to obscure. Yet the impact of such forces, especially on the side of demand, has become evident.

Changed price relationships are certainly one of the most important of these forces. A good example is the partial displacement of rice for wheat and other grains in postwar years in India, Ceylon, Japan, the Philippines, and other countries in the Far East. This was caused by the shortage of rice supplies and the consequent sharp upward trend in rice prices relative to those of wheat and other grains. In the prewar years 1934-38, daily per capita consumption of rice in Japan totaled approximately 13 ounces, and that of wheat products 2 ounces. From 1949 to 1953, rice consumption decreased to about 10 ounces while wheat consumption increased to 4 ounces.

The unprecedented bumper crop of rice in Japan in 1955 appears to have reduced the use of wheat flour. However, a public opinion survey conducted by the Japanese Ministry of Health and Welfare on Japanese dietary trends indicated clearly that the Japanese children who receive school lunches prefer bread to rice. Similarly, in Ceylon, the newly acquired habit of wheat consumption, which is mostly confined to urban areas, seems to persist even after rice supplies have become plentiful.

Perhaps the most striking illustration of the effect of changed price relationships is the increasing substitution of margarine for butter. Margarine consumption in the United States today is nearly three times the prewar average, while butter consumption has been cut in half. In many other butter-consuming countries this displacement is equally rapid despite numerous restrictions on the sale of margarine.

The interplay of consumers' income and prices charged consumers is another force that is resulting in changed food consumption patterns. In the United States the spectacular rise in per capita income has more than offset the effect of the sharp advance in the prices of livestock products, with the result that per capita consumption of meat and milk products, excluding butter, has increased 20 percent since prewar. The same is true in Canada. In Western Europe, where the expansion of income has not been so marked, meat products are still priced much higher in relation to other foods, so that the present levels of consumption are still some 10-20 percent below prewar. Other factors have contributed to this, such as government restrictions on imports because of balance of payments difficulties. Nevertheless, consumption of grain products and potatoes is declining in Western Europe just as it is in the United States.

In the less developed countries,

Bread still has an important place in French meals, but the trend, as income rises, is toward more "protective foods."

In Tokyo, where wheat consumption has increased, bakery employees prepare loaves of white bread for expanding market.

industrialization will not necessarily be accompanied immediately by similar changes in food consumption patterns. Where the caloric intake is extremely low, the first need is for increased supplies of high energy foods, and there is little doubt that this will be the early response to rising incomes. But in the long run, it is likely that the amount spent on high energy foods will fall, and that the consumption of protective foods will increase.

This does not mean that the use of cereals for all purposes will decline as income rises. As industrialization progresses, livestock farming, which is predominant mostly in the advanced countries, will probably spread to the less developed countries, and will require the use of larger quantities of cereals for feeding animals.

A third force in changing food patterns is governments themselves. The impressive increase in world consumption of fluid milk has been stimulated in many cases by government nutrition programs and other measures, including subsidies. The growing recognition by governments of nutritional considerations in planning agricultural programs has led, particularly in less developed areas, to expanded production of cheap but nutritious foodstuffs, such as pulses and fish.

Still another factor in changing food patterns is the growth in population and the changes that are occurring in its composition, especially as regards age and occupational groups. Some authorities believe that in most countries the average calorie requirements for the population as a whole will not be changed significantly, but that there may be a shift in the requirements for certain types of food. In countries where the birth rates remain high and infant mortality rates are falling, the proportion of children in the population will tend to increase, with a corresponding increase in the demand for milk and other protein-rich foods. In countries like the United States the use of labor-saving devices and the increasing proportion of elderly persons in the population are lowering the average need for energy foods.

Finally, there is the slow change in consumer tastes and preferences, which is difficult to assess or foresee. At the present time, Western Europe is consuming more fruit, milk, and cheese than before the war. This may result in a permanent change in food habits. On the other hand, there is always a possibility that should incomes go up appreciably or should meat prices drop, the people will prefer to return to the prewar pattern of buying more meat and less fruit, milk, and cheese.

Wheat and wheat flour are sold from sacks in this New Delhi grocery store along with the coarse grains which constitute the main diet of nearly half the Indian people.

All of these forces are complex. Moreover, they cannot always be gaged separately, for they react one upon the other. But they are forces not to be overlooked. The world is changing its eating habits, and to these changes must be geared agricultural production and trade.

German Scientist Confers On Germany's Wheat Needs

Dr. Werner R. Schaefer, Assistant Director of the Federal Research Institute of Cereal Industry at Detmold, West Germany, conferred recently with Foreign Agricultural Service officials regarding kinds of wheat needed in Germany.

Shown in the photograph above are, *left to right:* E. J. Bell, Director, Grain and Feed Division, FAS; Gordon Fraser, Assistant Administrator, FAS; Dr. Schaefer; and Gwynn Garnett, Administrator, FAS.

Dr. Schaefer, an international authority on cereal chemistry, came to the United States to present a paper at the Annual Meeting of the American Association of Cereal Chemists, in New York, and to study wheat marketing and testing methods. That study took him to Maryland, Texas, Kansas, and Missouri, up to Minnesota; over the border to Winnipeg, and then to Illinois and New York.

In his conversation at FAS, Dr. Schaefer reported that the baking quality of hard red winter wheat received from the United States during the past 18 months has been much more satisfactory for blending with German wheat since the German Government has been specifying a minimum of 12 percent protein in its purchase contracts.

Colombia Tightens Trade Controls

This spring Colombia moved to reduce the pressure on its official exchange resources, ease its balance of payments situation, and catch up on its remittance backlog. It increased the prior deposit to be paid by each importer at the time the import license was issued, and it temporarily ceased processing any import-license applications at all. It suspended barter trade. And, perhaps of most consequence to U. S. exporters, it transferred a large number of commodities to less favorable import categories.

Transferred from the Preferential Import Group to Group I were these commodities of interest to the United States: Copra, turpentine and pine resin, and feedstuffs (superconcentrates for the manufacture of feed). In addition to the regular customs charges, these items are now subject to a tax of 10 percent plus a 50-percent prior deposit, instead of the 3-percent tax and 40-percent deposit imposed on the Preferential Group. They may still, however, be imported with dollars obtained at the official rate of 2.51 pesos per dollar.

Transferred from Group I to Special Group II were poultry, shell eggs, egg yolks, spices, malt and malt extracts, and crude tallow. These items are subject to the same taxes as the Group I items, but they must be imported with dollars obtained at the free market rate, which has fluctuated around 4 to 4.5 pesos to the dollar in recent weeks.

Plans for Soviet-Built Fertilizer Plants In Yugoslavia

Yugoslavia signed a contract with the Soviet Union in mid-April for the delivery of two fertilizer plants to Yugoslavia. This is part of the economic and technical aid program initiated by the Moscow-Belgrade protocol of September 1955. With these plants, Yugoslavia will have taken a long step toward the fulfillment of its 10-year (1952-62) development plan for agriculture, which stresses increased production and consumption of fertilizer as a prerequisite for increasing farm output, and thereby reducing import requirements, especially for wheat and lard. Those two commodities, obtained largely from the United States under economic aid programs, accounted for as much as 21 percent of the value of total imports in 1954.

The fertilizer contract provides for the construction of a nitrogen plant, with an annual capacity of 100,000 tons of ammonia, and a superphosphate and sulfuric acid plant, with an annual capacity of 250,000 tons of superphosphate and 120,000 tons of sulfuric acid. The Soviet Union has undertaken to draw up plans for the factories, to deliver equipment and part of the materials required for their construction, and to send Soviet experts to help put them into operation. The cost of the planning work, equipment, and material is to be covered by a 10-year credit at 2 percent interest, with repayment to begin January 1, 1959.

Mexican Economy In High Gear

With Mexican agricultural and industrial production continuing at the high levels of 1955 and with exports increasing at a faster pace than imports, the Mexican economy has so strengthened its position as to permit a possible lessening of government restrictions on agricultural imports.

Mexico's gross national product for 1955 is estimated at $6.8 billion, or 26 percent above 1954. Making an allowance for higher prices, this increase in real terms is 10 percent. Total trade also increased, and the balance of payments position improved.

Government policies and actions were of great assistance in encouraging both agricultural and industrial production during 1955. Briefly, these may be summed up as: (1) maintaining import controls to protect local industry; (2) granting tax exemptions for new industries; (3) providing financial aid in establishing industries judged to be important to the economy; (4) granting agricultural credit; (5) teaching new agricultural methods, use of fertilizer, and improved seeds; (6) encouraging production of fertilizer; and (7) constructing public irrigation works to increase the extent of arable lands.

As related to agriculture, these measures have helped make Mexico practically self-sufficient in many foodstuffs and have kept agricultural imports low over the past year. The harvest of the largest wheat crop on record started in April. And even though cotton acreage is less than in 1955, higher yields are expected. Production will be only slightly below that of last year, and cotton available for export should be about the same.

With regard to industry, these government policies and actions have contributed to the industrialization of the country and the greater purchasing power of Mexico as a whole. They have also led to Mexico's improved trade balance position, which gives the economy more strength than it has had in the recent past, and which should allow an easing of government restrictions on the importation of foodstuffs.

Since approximately three-quarters of Mexico's total trade is with the United States, U. S. agriculture stands to benefit from any relaxation of trade barriers. Powdered milk, cheese, powdered eggs, and fresh fruits are some of the products that might be imported. In addition, U. S. producers could expect continued—and possibly increased—imports into Mexico of lard, tallow, breeding animals, baby chicks, and perhaps shell eggs.

Japan Gains Strength in Foreign Trade

By Riley H. Kirby
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THE JAPANESE ECONOMY has made encouraging progress during the past 2 years. Exports are up; and, during the first half of fiscal 1956, Japan expanded its import budget.

The progress is especially apparent when viewed against the background of developments from the fall of 1952 to mid-1954.

Then, Japanese imports were increasing while exports had stagnated at a much lower level. And, except for 4 months, Japanese foreign exchage payments ran substantially above receipts. Consequently, foreign exchange holdings dwindled.

An austerity program undertaken in the fall of 1953 halted inflation and curbed the domestic market. Japanese products became more competitive in world markets. Exports rose from $1,275 million in 1953 to $2,011 million in 1955 and imports, less than 3 percent. Thus the trade deficit was reduced from $1,135 million in 1953 to $461 million in 1955. These deficits were somewhat offset by surpluses in invisible transactions; especially important have been the special receipts from U.S. military procurement. It is significant that while special earnings have declined sharply from the high level of 1952 and 1953, Japan's overall balance of payments has steadily improved. Foreign exchange payments exceeded receipts in fiscal 1953; but as a result of the recent export boom, and to some extent because of deferred import payments, Japan had a surplus in 1955. By January 1956 foreign exchange holdings had mounted to $1,452 million.

Japan's balance of payments and foreign exchange holdings
[In millions of dollars]

Japanese fiscal year ending March 31	Balance of payments			Foreign exchange holdings
	Receipts	Payments	Balance	
1952:				
Apr.-Sept.	1,114	939	175	[1]1,149
Oct.-March	993	1,075	-82	1,081
1953:				
Apr.-Sept.	1,077	1,149	-72	1,043
Oct.-March	1,085	1,325	-241	825
1954:				
Apr.-Sept.	1,158	1,078	79	910
Oct.-March	1,209	944	265	1,160
1955:				
Apr.-Sept.	1,344	1,111	233	1,335
Oct.-March	1,495	1,193	302	[2]1,452

[1] As of Dec. 31, 1952.
[2] As of Jan. 31, 1956.

With this improvement in international accounts, Japan has expanded (to $1,543 million) its allocation of foreign exchange for imports of merchandise during the first half of fiscal year 1956. Emphasis appears to be on raw material for industrial expansion; and, despite Japan's record rice crop, no reduction in staple food imports is anticipated. Plans for somewhat smaller rice imports are offset by the scheduling of increased wheat and barley imports.

Details as to source of imports have not been announced. Purchases from the United States will be made with one eye on comparative prices and the other on flow of exports to the dollar area.

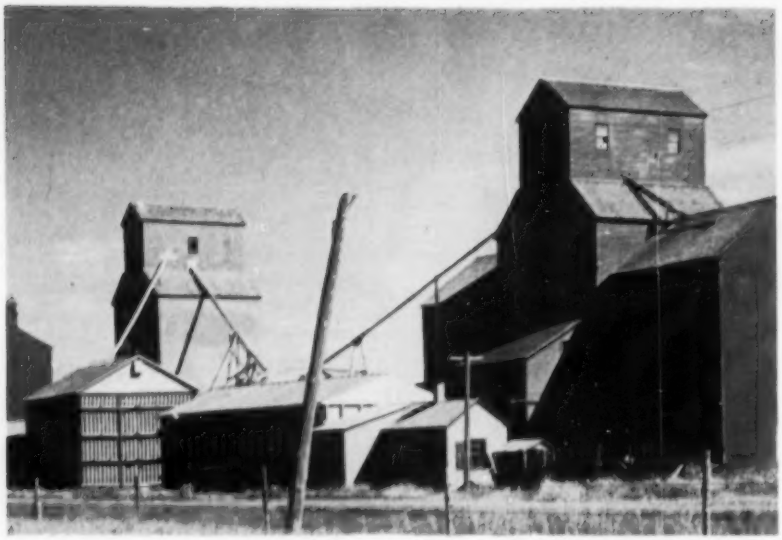

Photo by Canadian National Film Board

Photo from Canada Agriculture

Grain elevators with annexes in Saskatchewan, a big grain-producing area of Canada. Until it can be moved into elevators, grain is stored on farms, as shown above.

Canada's Grain Delivery System As a Method of Acreage Control

By FRED J. ROSSITER
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WHETHER THE CANADIAN delivery quota system controls wheat acreage has been a controversial subject during recent years.

Farm leaders in the United States frequently say that if the Canadian Government would develop a wheat acreage allotment program, it would help reduce the North American surplus.

Canadian officials, on the other hand, have contended that their delivery quota is an effective system for controlling grain acreage. This year, they point out that the Canadian Government, on March 21, announced that farmers intend to seed the smallest wheat acreage of any year since 1943.

Delivery quotas have been part of the Canadian grain marketing system for many years. The system was inaugurated in 1940-41, when the big 1940 crop was added to a large surplus from the previous harvest. Under this system the Canadian Wheat Board issues grain delivery quotas to farmers. Grain elevators are not permitted to accept grain from anyone who does not possess a delivery quota. The purpose is to divide the available elevator space as fairly as possible among the producers. As more space becomes available following the shipping and disposal of grain, the quotas are gradually increased.

For a number of years the system worked well. All of the marketable grain was disposed of in a fair, orderly manner. But for the past 3 years, most farmers have been able to sell only part of their grain crops, and grain has piled up on the farms. On August 1, 1955, prairie farmers held over 100 million bushels of wheat that they were unable to sell. All available elevators were filled with old-crop grain, and the farmers were about to harvest another bumper crop.

In the Canadian Government's 1955 survey of farmers' intentions, wheat acreage was to be cut 2.5 percent compared with 1954. Actually, it was cut 12 percent, but mainly because of unfavorable weather at planting time. This year's survey indicates a further cut of 3 percent. This will result in 20.8 million acres of seeded wheat compared with 24.3 million in 1954. The reason for this further cut is evident in the limitations placed on deliveries.

From August 1 through March 14 of the current marketing year, total deliveries of grain (wheat, oats, barley, and rye) amounted to 229 million bushels as compared with 285 million for the same period last year. The volume of grain permitted was 56 million bushels below the previous season 1954-55 and the lowest since the delivery quota system was started. Furthermore, Canadian farmers were permitted to deliver only 25 percent of their total salable wheat during the first 7½ months of the current marketing year.

The delivery quota system varies

(Continued on next page)

New Report on Market Competition

The Competitive Position of U.S. Agricultural Products in World Markets, just published by FAS, tells of greater competition faced during the past 2 years—but greater export volume achieved. The volume of exports during the current fiscal year is only 9 percent below the record level of the late 1920's, and only 2 percent below the abnormally high level of the first 5 postwar years of large U.S. aid shipments.

The report names these factors as *favorable* to U.S. farm exports: Rising population; improved levels of economic activity abroad; rising incomes, leading to better diets; and, in many countries, larger reserves of gold and dollars. *Unfavorable* factors are: Rapid increases in competitive foreign production, sometimes outstripping demand; some U.S. prices higher than those of competitors; relatively inelastic demand for some products; the higher import priority given to U.S. manufactured goods than to U.S. farm products by some dollar-short countries; too little convertibility of currencies; and, most important, a multitude of discriminatory trade barriers that exclude U.S. farm products from many parts of the world market.

To improve the competitive position of U.S. farm commodities, the U.S. Government has—

- used the machinery of the Trade Agreements Program to obtain many duty reductions and some lessening of import controls and of discrimination against U.S. goods;
- developed special export programs, including barter, donations, and sales for foreign currencies;
- built a wide network of agricultural attachés;
- expanded its market development programs, using Section 32 funds and foreign currencies earned under Public Law 480;
- collected and analyzed much information about foreign markets, and distributed it widely.

Panama Continues Trend Toward Self-Sufficiency

Panama's trade controls and its encouragement of domestic industry are increasing domestic production of agricultural products. Most recent example is milk.

Processed milk has been a leading import item for Panama. But under a decree passed in May 1950, which permits the government to fix import quotas on competitive milk products, two milk plants were established recently and are using mostly local fresh milk.

One of these plants, located near the town of Concepción in Chiriqui Province, makes a powdered milk product called "Vitalac." Starting operations in December 1955, with a daily capacity of 28,375 pounds it is now buying 11,350 pounds of milk each day from 90 sources, at a price of 6 cents a quart for milk with 3.5 percent butterfat. It is expected that local milk will gradually replace imported powdered skim milk now used with fresh milk in the manufacture of its product. Plans are also underway to extend production to include cheese and butter when the local milk supply is adequate.

The other company, at Nata, which produces condensed and evaporated milk, purchased 10,886,920 pounds of milk from farmers in the central provinces during 1955. The plant's production of 6,018,550 pounds exceeded that of 1954 by 260,140 pounds.

A government program of artificial insemination is under study as a means of building up Panama's dairy herds. At the same time, the government is continuing its effort to decrease the amount of unused agricultural lands. Owners of more than 247 acres were required to present declarations by March 31, stating how land is being used.

The Office of Price Control at the present time prohibits the importation of condensed milk; evaporated and powdered whole milk are under quota.

Grain Delivery System

(Continued from page 10)

somewhat from year to year. For the 1955-56 marketing year, delivery quotas are required for wheat (other than durum), oats, barley, and rye. The initial quota per farm permits delivery of 100 units, each unit equivalent to 3 bushels of wheat, 8 of oats, or 5 of barley or rye. As local elevator space becomes available, each farmer in a district is given an additional quota of 1 bushel per specified acre (1 acre of wheat, barley, oats, rye, plus acreage in fallow). As of March 1, only about 15 percent of the farmers had received permits to deliver up to 4 bushels per specified acre.

During 1954-55, all farmers were issued their initial quota plus 1 bushel per specified acre, until all had received an 8-bushel quota. Since elevator space was not sufficient to permit delivery of all quotas by the end of the marketing year, July 31, farmers continued delivering against their 1954-55 marketing quota during the current marketing year before receiving new delivery quotas.

Canadian farmers receive cash for grain upon delivery to the local elevator. The fact that that outlet is practically the only market the farmer has for crops makes the delivery quota system effective. If Canadian farmers decrease their 1956 wheat acreage as the March survey indicates, the delivery quota marketing system will have been proved to be an effective way to reduce acreage.

Conveyor-type cooling system which passes dressed birds through a water-filled cooling basin at 35° F.

Danes Develop New Techniques For Poultry Processing

By SHERWOOD O. BERG

U.S. Agricultural Attache, Denmark

IN DENMARK—a land noted for its excellent butter, eggs, and bacon—dressed poultry is something comparatively new in the display cases of the local stores. But the appearance of frozen broilers and fryers, precut and handsomely wrapped in neat plastic packages, is encouraging Danish housewives to turn to dressed chicken, with the result that the Danes are eating more poultry than ever before.

Much of the credit for the better merchandizing and improved competitive position for Danish dressed poultry—not only at home but in other European markets—goes to the Ringsted Cooperative Poultry Slaughter Plant (Ringsted Andelsfjerkraeslagteri) and especially its manager, Thosing Jorgensen. In their postwar planning, Mr. Jorgensen and his coworkers set out to establish as efficient a plant as possible. They started under a handicap of comparatively little experience; also, they knew competition would be keen. Applying ingenuity, inventiveness, and hard work, the Ringsted cooperative developed two innovations in the poultry dressing process which undoubtedly would be the envy of many American processors. Both these new steps were designed to increase efficiency of operations and to place a better product in the hands of the consumer.

The innovations are (a) a conveyor-type "cooling system" which passes dressed birds through a water-filled cooling basin, and (b) a graduated mechanical scale which automatically sorts dressed, packaged birds according to weight.

Dressed birds as they emerge from the basin after being cooled.

The Cooling Basin

It is generally recognized that the use of a cold water bath is a more efficient manner of reducing the body temperature of freshly killed birds than cooling by air in a refrigerated room. Not only is the former method time-saving,

Packer transfers birds from bins to crates for storage and shipping. Attractive appearance on market has caused Danes to eat more poultry than ever before.

After cooling bath, birds are sealed in plastic bags and placed on moving scale-pan of automatic weighing and sorting machine. Below, scale pan automatically tips as bird reaches holding bin for its weight class.

but it results in a better quality, more attractive product. In the United States the cooling is usually done by packing birds in steel tanks filled with water and shaved ice. Often the tanks are portable, but still much back-breaking labor is involved in handling the ice and in transferring the birds in and out of the huge containers.

The Ringsted plant has put this operation on an assembly-line basis. Dressed birds, suspended on a slowly moving conveyor chain, enter a specially designed basin filled with chilled water and emerge from the bath 1½ hours later ready for packaging and storing, or for eviscerating.

The basin, constructed of concrete and lined with white tile, is approximately 55 feet long and 22 feet wide, and holds about 10,000 gallons of water at a temperature of about 35° F. A compressor having a capacity of 60,000 kilogram calories per hour is sufficient to refrigerate the water to this low temperature. In their course through the chilled water, birds traverse the basin 12 times. A coordinated system of pumps and partial partitions directs the stream of water in the opposite direction to that in which the conveyor is moving, thereby hastening the cooling process.

During their passage through the water, the dressed birds are held in cone-shaped stainless-steel containers. These are open at both ends and suspended about 2½ feet from the main conveyor belt—at a distance that will assure that the birds are completely submerged. With a view toward gaining the approval of the discerning eye of the customer, the containers or buckets holding the birds are designed to shape the carcass to accentuate the "broad breasted" qualities.

The conveyor belt is about 760 feet long and for four-fifths of its length passes over the cooling basin. Traveling at the rate of 400 feet per hour, the system will "cool down" about 1,200 birds an hour. Thus, in the Ringsted plant, less than 2 hours after the birds are killed they are cooled from approximately 104° F. to 35° F.

The Automatic Weight Sorter

When the birds have been cooled and, in some cases, eviscerated they are packed in plastic bags, weighed, placed in wooden boxes, and put in deep-freezing rooms at about –31° F. To aid in weighing and packaging, the Ringsted cooperative has designed and built another labor-saving device, an automatic weighing and sorting machine. The birds, in plastic bags, are placed on a moving pan, or scale. This pan moves along horizontally at one of three levels over

(Continued on page 21)

Expanding Economy Of the Federation Of Rhodesia and Nyasaland

By ROBERT C. MONCURE
Africa and Middle East Analysis Branch
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THE SPECTACULAR expansion in the economy of the Federation of Rhodesia and Nyasaland is both a challenge and a promise to U.S. agriculture. As competitor of the United States in world tobacco markets, the Federation presents a definite challenge to the U.S. tobacco industry. Its promise to American agriculture lies in its rapid industrial development, particularly in copper mining. With this expansion the Federation's agriculture has not been able to keep pace, so that today there is a growing demand for imported foods and fibers.

Tobacco ranks as the country's most important export crop. In 1954, tobacco constituted 17 percent of the total value of the Federation's exports, and was the chief competitor of U.S. tobacco in the United Kingdom, South Africa, and Australia. Most of it is Virginia flue-cured, grown on large European-owned farms in Southern Rhodesia. The remainder, mainly fire-cured and Burley types, is produced largely on small African-owned farms in Nyasaland, and in Northern Rhodesia.

For the U.S. tobacco grower the most significant factor is the rate at which tobacco production and exports are increasing, particularly Rhodesian leaf. The Federation's total crop rose from an annual average of only 45 million pounds in 1935-39 to 151 million pounds in 1955. For 1956 it is estimated at 180 million pounds.

Improved cultural practices and expanded acreage point to an even more substantial increase in the future. In Southern Rhodesia, some planters are now using overhead irrigation in order to harvest two crops a year, and in Nyasaland extensive efforts are being made to improve the culture, curing, and handling of African-grown tobacco. U.S. techniques are well known. Southern Rhodesia, in particular, has close agricultural ties with the United States through Kentucky and North Carolina tobacco growers and auctioneers who have migrated there, and is even giving the name of Kentucky Airport to its new airport at Salisbury.

What handicaps U.S. tobacco in competing with Federation tobacco exports are the guaranteed purchase agreements and the preferential tariffs between the Federation and the United Kingdom, South Africa, and Australia. Without these restrictions, U.S. tobacco could compete much more effectively in these markets; but as things stand now, the Federation's growing tobacco trade is a vigorous threat to the U.S. tobacco industry.

Industrial Development

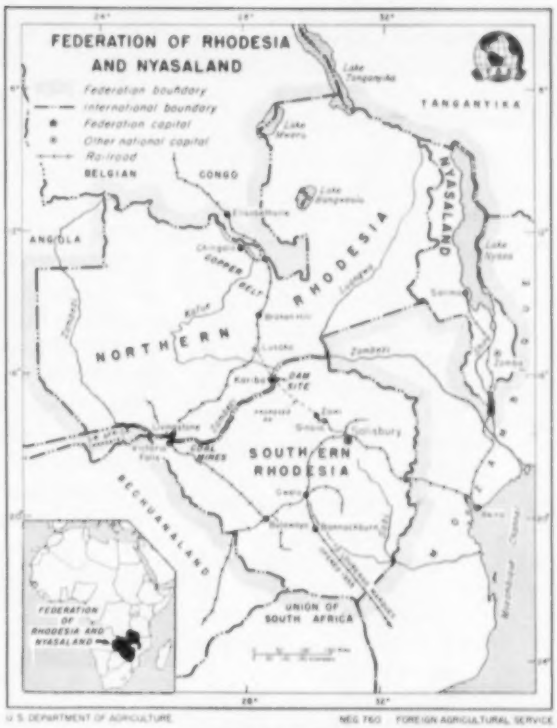
It is somewhat more difficult to predict the extent of the promise that the Federation holds for American agriculture than it is to forecast its position as a competitor in tobacco. The Federation is growing rapidly. Its booming economy is changing its way of living.

Not only is the Federation the world's largest copper producer, but it is developing its other mineral resources, creating secondary industries, building railways, and extending its power development. Impressive as this expansion has been, progress would have been even greater had the Federation not been limited by severe shortages in electric power and rail facilities. Because of these the Federation had to import 30,000 tons of U.S. coal this year. The construction of the $316-million Kariba Dam on the Zambezi River—employing some 10,000 African laborers—will augment the power supply; while the construction of the proposed Sinoia rail cutoff from Southern Rhodesia via the Kariba Dam to Northern Rhodesia will save 500 miles of rail haul and facilitate the movement of Southern Rhodesian coal as well as food to the copper belt in the north.

This extensive industrialization has ended the country's self-sufficiency in food. About 900,000 Africans are estimated to be engaged in full or part time wage work on railways, in mining and other industry, and on the European-owned farms. This shift from subsistence farming to other types of employment, with regular wages, has led to an increased demand for imported food by African urban and mining workers, especially in the copper-producing area of Northern Rhodesia. At the same time, the Federation's European population is growing as a result of immigration—some 20,000 in 1955, or about 8 percent of the present European population. This group, too, makes demands that cannot be met by local production.

The Federation of Rhodesia and Nyasaland is a self-governing British territory in central Africa, created in 1953 out of Southern Rhodesia and the protectorates of Northern Rhodesia and Nyasaland. It is a land filled with memories of Livingstone and Rhodes, and is famous for its towering Victoria Falls. Comprising an area of about 487,000 square miles (including 10,500 of water in mountainous Nyasaland), it is nearly twice the size of Texas. The population is about 7 million, of whom a quarter million are Europeans.

Most of the Federation has an average altitude of 3,000 to 4,000 feet. There is a mean annual rainfall of 35 to 45 inches, with a definite dry season in most areas from April to October. A wide variety of crops are produced: tobacco, corn, beans, peas, kaffir corn, millets, citrus, cotton, peanuts, tea, tung oil, and cassava—with tobacco and tea the major export crops. It is the world's second largest copper producer as well as the source of other important minerals.



U. S. DEPARTMENT OF AGRICULTURE NEG 760 FOREIGN AGRICULTURAL SERVICE

Food Requirements

Corn is still the principal item in the African diet, and corn production in recent years has been ample to meet domestic needs, partly because of good weather and partly because of wider use of hybrid seed. But the African workers in the urban and mining areas are consuming increasing quantities of wheat bread—and wheat growing has not proved successful, except on a very small scale in Nyasaland. Attempts are being made, however, to develop rust-resistant varieties in both the Rhodesias.

The situation is somewhat similar with regard to dairy and beef production. The growing demand for animal products has led to considerable expansion, but nowhere near sufficient to meet the Federation's needs. Tsetse fly infestation in most of Northern Rhodesia is a severe limitation to animal production. Total cattle numbers in 1954 were estimated at only 4,355,000, the majority of them in Southern Rhodesia; and commercial milk production in this same year was only about 144 million pounds.

While Southern Rhodesia has a small but modern dairy industry all of the country's canned and dried milk requirements are met by imports, chiefly from Australia, South Africa, and Canada. A million pounds of margarine was produced in 1955, but butter is still preferred. In this same year, the Federation imported four-fifths of its butter and one-third of its cheese requirements.

There is also a well-organized hog industry. It has its own pig progeny testing and research station, and great efforts are being made to increase production. As there is limited local consumption of pork and lard, the Federation

Plucking tea in Nyasaland. Tea ranks as the Federation's second most important export crop.

Photo from Federal Information Department

Southern Rhodesian tobacco farmers use modern equipment to harvest the leaf, which competes strongly with U.S. Virginia flue-cured.

exports each year over a million dollars' worth of ham and high-quality pig carcasses to the United Kingdom. It does import substantial quantities of bacon, however.

Conscious of the country's food requirements, the Southern Rhodesian Government has set up programs to raise African agriculture from the subsistence level to higher productivity and to shift from communal to individually owned farms. In this, the country is handicapped by inadequate transportation, the high cost of fertilizers, lack of large-scale irrigation, and other essentials. Until the Federation can match its agricultural expansion to its industrial expansion, there is little likelihood that it can avoid importing sizable quantities of foods, particularly those for which the United States is a potential supplier. In 1954, agricultural imports totaled $37.2 million, and consisted mainly of sugar, wheat, cotton, butter, cattle for slaughter, and processed milk.

Fortunately, the Federation is in an enviable trade-balance position. Fifty years ago the area's trade consisted entirely of ivory in return for guns, liquor, and a few other simple trade items. It now exports 250 types of goods and imports 330 types. Exports in 1955 were valued at about $498 million and imports at $388 million. This visible trade-balance increase, though resulting mostly from the rise in copper prices and not from an increase in volume, has placed the Federation in the position where it can buy what it wants on world markets.

Meaning for U.S. Agriculture

What does this mean for the United States—and especially for U.S. agriculture? Not too much at the present time, though there is considerable potentiality. While the United States is the Federation's best customer outside the British Commonwealth—taking 10 to 15 percent of total exports—imports from the United States have dropped percentagewise from prewar levels. In 1955, the Federation sold products valued at $63 million to the United States but it bought only $18.2 million worth. Federation exports were almost entirely minerals, imports from the United States principally manufactured goods.

For U.S. agricultural products the major deterrents are the import licensing restrictions and the preferential treatment of Commonwealth products. Agricultural commodities from Commonwealth countries are usually admitted duty free, while on many U.S. products duties of 5 to 10 percent are levied. As a result, most of the Federation's food imports come from Commonwealth countries—the Union of South Africa, Bechuanaland, Australia, and New Zealand.

During the last year or so, however, there has been some relaxation of dollar currency and import licensing restrictions, which has benefited Western Europe and Canada and which is now extending to the United States. The preferential duty on tallow was suspended, and dollar allotments were established for the import of wheat from the dollar area. Late in 1954, wheat was purchased in Canada, and this year Rhodesian millers bought wheat from the United States for the first time in many years.

There is also a strong possibility that the Federation may need to import additional cotton. The cotton textile and clothing industry in Southern Rhodesia is a vital secondary industry. The Federation's cotton grows mainly in Nyasaland, and because of the difficulty of transporting it to the mills of Southern Rhodesia, it has been exported to the United Kingdom. While Nyasaland cotton is now beginning to move to Southern Rhodesia, the supply is entirely inadequate, and Southern Rhodesia is obliged to import cotton from the neighboring countries of Uganda, Tanganyika, Belgian Congo, Mozambique, and the Sudan.

Cotton enters duty free from these sources, though a 10 percent ad valorem duty can be invoked if desired. Cotton from the dollar area is still subject to currency and licensing restriction, but recently there have been inquiries from Southern Rhodesia concerning U.S. cotton.

How soon and to what extent these restrictions on U.S. agricultural commodities will be eased is an open question; the answer is intricately linked to the area's industrial expansion, its power and transport development, and its growing population. There is little doubt that the upward economic trend will continue. Copper production is predicted to reach 560,000 tons in 1958, compared with 378,600 tons in 1954; and tobacco production, as mentioned, is also scheduled for a substantial rise. Food imports, therefore, are more likely to increase than diminish.

The Federation's current trade agreements, import licensing, and tariff restrictions make it difficult for U.S. agricultural products to compete with Commonwealth sterling sources. But should the Federation, in view of its expanding economy and need for diversified capital imports, decide to liberalize its dollar trade policy, the United States and the Federation may find themselves engaged in a more mutually profitable trade relationship, in which U.S. agriculture is bound to gain its share.

Turbulent Middle East

(Continued from page 5)

cal aspect of the agricultural resource; how to translate increased production into greater consumption at high levels of living among the great majority of the people; how to bridge the traditional gap between underproductive surplus manpower and promising undeveloped resources; how to provide the necessary security for the cultivators of the land

in order to sustain a stable, prosperous agricultural base.

Turkey took the lead in this respect with such agrarian reform measures as rural education, vocational training, and land distribution on the basis of private ownership. Egypt applied itself early to the development of agricultural cooperatives; then followed with a dynamic system of rural improvement centers; and, more recently, under the determined leadership of the new regime, embarked upon a national program of land reclamation, redistribution, and resettlement. Iraq and Syria have made some beginnings in the resettlement of landless peasants on state domain, assisting them with credit and other facilities. His Majesty, the Shah of Iran, has recently set up a model project of land distribution and general improvement among the peasants living on his domain.

But what remains to be done in most of these countries is vastly greater than what has been accomplished. Time is running short, in view of the rapid developments taking place and in view of the international tension to which the area is subjected. The current state of disequilibrium in the wide agricultural base of the region lends itself to the presently threatening explosion.

In this connection, it is significant to note that the dramatic, and apparently successful, entry of the Soviet Union and its associates into the Middle East in 1955-56 has been made largely through agricultural channels. The problems, the needs, and the potentials of agriculture are emphasized in the approaches made to various countries. Offers to buy critical crop surpluses (mainly cotton, rice, and wheat) and to assist technically and economically in the further development of agriculture have been made freely. As a result several trade agreements have been signed with some of the Middle East countries, and others may follow. Also Russian offers of assistance to specific developmental projects including the High Aswan Dam of Egypt are under active consideration.

U.S. agriculture has reason to be seriously concerned with this historical, long-range development of the Middle East, and its resultant problems. The matter of increasing competition by certain commodities in world markets needs to be looked into diligently and broadly, with a view to achieving healthy adjustment by all concerned. Developmental schemes could be guided and assisted in such a way as to emphasize increased internal consumption and the production of crops that are in world demand. Technical know-how could be increasingly applied in the fields of public administration, basic agricultural services, and agrarian institutional organizations, with a view to achieving stable, balanced development aimed at raising standards of living among the people.

To play this positive role effectively, U.S. agriculture can draw upon a tremendous reservoir of forces. Among these are a vigorous, fair-minded trade; a healthy rural heritage, based primarily upon private initiative and ownership and the farm family system; a dynamic concept of the government-farmer relationship, based upon service and cooperation; an extensive agrarian structure, with solid institutions through which farmers achieve progressive self-help and speak for their needs and for national interests; and a great technology that has achieved miraculous production through efficient management in the hands of the farmer.

These are tremendous, positive forces, indeed, which lend themselves admirably to greater integration into a solid agricultural front for democracy. Thus integrated within an overall, long-range policy, they could contribute decisely to the sound development and stability of the Middle East, and to the enlightened interests of the United States as well.

Peru's Need For Imports Upped by Drought

Peru will need to import additional food to make up for the decline in domestic production brought on by drought. The drought is of about 8 months' duration and hit the southern and central Andes during the usually moist growing season. It caused a loss of around 30 percent of the livestock in the area and sharply reduced prospects for this year's harvest of vegetables, grains, and fruit.

The United States has responded to Peru's request for assistance in this emergency by providing 45,000 tons of wheat, barley, and corn, and 2,000 tons of dry milk as a gift of the American people under Title II of Public Law 480.

The region hit by the drought is Peru's most populous and most important farming and livestock area.

Several million acres of pasture in the region were damaged; a forage loss of close to 2 million dry tons is expected. Weakened plants and animals are falling prey to pests and disease. Forced slaughter of livestock is providing an abundance of meat in the immediate areas, and will increase Peru's total meat production this year, but its distribution will be uneven, both geographically and seasonally.

Peru's crops of potatoes, barley, wheat, corn, and other grains, beans, and vegetables will be down sharply from a year ago. The potato yield is expected to drop 80 percent, the barley yield, 40 percent, and the quinoa 30 percent. The fruit crop, already cut late in 1955, is expected to be even further reduced.

The Andean area faces not only a severe food shortage but also a sharp decline in income from its normal commercial products, especially potatoes, white corn, and quinoa. And there is a large accumulation of sheep's wool in producers' hands, but prices of wool are depressed.

What About COMPETITION From the *Middle East?*

U.S. exporters of wheat are facing a complex problem in the Middle East. The area's total wheat imports are going down: the area itself is supplying more of its own wheat needs. Not only are most of the countries raising more wheat, but wheat trade within the area is showing a pronounced increase—reflected in the rising figures for its total wheat exports.

Part II. Wheat and Barley

By W. GARTH THORBURN
Africa and Middle East Analysis Branch, Foreign Agricultural Service

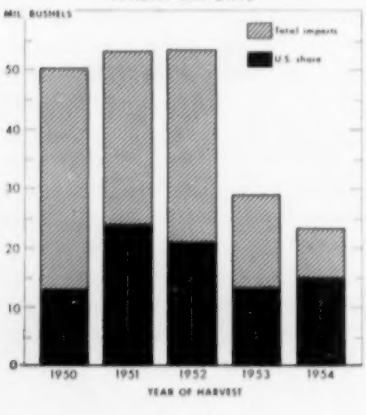
WHEAT AND BARLEY are the Middle East's most important crops, measured by both production and consumption. But the trade situation varies from country to country. In good years Turkey, Iraq, and Syria are net exporters of both grains. Iran meets most of its own wheat needs. Egypt and Israel, which must import, have been major markets for U.S. wheat.

All Middle Eastern countries are striving to increase grain output—either for greater self-sufficiency or for export. And all have the same problem—erratic rainfall and insufficient irrigation facilities.

In **Egypt**, each year since the end of World War II with the exception of 1954, the government has specified the wheat acreage that must be planted, as part of its program for self-sufficiency in food grains. In 1954, compulsory wheat acreages were lifted in favor of cotton. As a result, cotton production rose in 1955; but the wheat crop harvested that year was only 53.3 million bushels, compared with the previous crop of 63.5 million. Because Egypt's cotton exports declined, there was little or no foreign exchange to spare for wheat imports.

Compulsory wheat acreages were restored for seeding in the fall of 1955, each farmer being required to plant wheat on at least a third of his crop area. Reports show close to 1.8 million acres under wheat this spring, compared with 1.6 million the previous year and 1.9 million for the 1954 harvest. Wheat is being harvested between April and June. But in the meantime, Egypt has been undergoing a wheat shortage so critical that the United States is supplying wheat through Public Law 480, for Egyptian currency.

U.S. SHARE IN TOTAL MIDDLE EASTERN WHEAT IMPORTS



EGYPT: Wheat Supply 1951-54*

(Thousands of bushels)

	1951	1952	1953	1954
Production	45,000	41,000	56,860	63,500
Imports	33,421	34,296	8,054	1,47[illegible]
Exports	213	775	456	------

*Year of harvest

IRAN: Wheat Supply 1951-54*

(Thousands of bushels)

	1951	1952	1953	1954
Production	66,000	75,000	82,500	78,000
Imports	7	4	4	1,470
Exports	------	------	37	------

*Year of harvest

Wheat sowing will be compulsory in Egypt again this fall. The net rate of population increase, estimated at 2.5 percent a year, puts additional demands on the government, not only to maintain but to increase wheat production—or else to find the means for purchasing imported grain as needed. However, Egypt's ability to feed its growing population depends largely on the expansion of its irrigation system, which depends in turn on the completion of the proposed High Aswan Dam. In the interim, unless cotton production is kept in the background, more grain must be imported every year for the increasing home market.

Though **Iran** is the second largest producer of wheat in the Middle East, it is not and has not been a wheat exporter. In fact, during poor years like 1949 it has required sizable imports, for wheat furnishes more than half the calories in the Iranian diet. However, any major fluctuations in its wheat crop are due to the hazards of weather, not to policy changes as in Egypt. Iran's wheat production has increased in the past 15 years at a fairly steady rate more or less matching its need. The crop of 1955 reached a high point of 85 million bushels, about 18 percent above the prewar average.

In most postwar years **Iraq** has

IRAQ: Wheat Supply 1951-54*

(Thousands of bushels)

	1951	1952	1953	1954
Production	19,100	18,400	26,000	27,000
Imports	29	367	.....	.....
Exports	.....	.....	29	3,674

* Year of harvest

been a net wheat importer, though in good years it can export wheat. From the 1954 crop of 27 million bushels, for example, it sold nearly 4 million.

Of barley, however, Iraq is a high-ranking exporter. In 1953, it harvested a barley crop of 41.5 million bushels, about three-fourths more than the 1935-39 average; and during 1953-54 it exported nearly half this quantity. In 1954, production was only 34.5 million bushels, yet 1954-55 exports were 22.5 million, almost as large as the year before.

On the European market, Iraqi barley competes with U.S. coarse grains, particularly corn. If corn prices are higher than barley prices, Europeans will use barley in preference. Thus, even though Iraq's barley production is somewhat erratic, it can be expected that whenever Iraq has a good barley crop, U.S. sales of corn to Europe will decline.

In **Israel,** wheat accounts for more than half the daily per capita calorie consumption. The domestic crop, however, can fill only about 12 percent of the need. Israel's imports averaged about 6 million bushels in 1948-50, but have gone up steadily since then, reaching 12 million in 1954. During the past 4 years the United

SYRIA: Wheat Supply 1951-54*

(Thousands of bushels)

	1951	1952	1953	1954
Production	20,200	26,000	19,091	29,390
Imports	.....	.....	.....	.....
Exports	.....	5,236	11,126	6,871

* Year of harvest

States has supplied somewhat more than half of the total. In 1954, the U.S. share rose to two-thirds; that year, however, the wheat crop in Turkey was bad. In good years Turkey has been furnishing increasing quantities of wheat to Israel. This trade is advantageous for both countries: Turkey needs many of the industrial goods that Israel exports.

Syria normally competes with the United States in several important wheat markets, especially the Netherlands, Western Germany, Italy, and Lebanon. Lebanon is the major purchaser of Syrian wheat, taking from that source over 3.7 million bushels a year, or almost three-fourths of its total imports.

In 1955, however, the Syrian wheat crop—harvested in May and June—was considerably cut by drought. Until this year's crop comes in, there appears to be just enough wheat for local needs, with none available for export. Barley production and exports, too, were affected by the drought.

Largest wheat producer in the Middle East, **Turkey** has been a net exporter since 1951. But the crop harvested in 1954 was extremely low, and Turkey had to import grain from the United States. Even though the crop of 1955 was the second largest on rec-

TURKEY: Wheat Supply 1951-54*

(Thousands of bushels)

	1951	1952	1953	1954
Production	205,000	259,000	293,950	180,040
Imports	3,932	.....	26	5,674
Exports	8,102	22,277	51,996	16,000

* Year of harvest

ord (260.9 million bushels), Turkey has needed U.S. grain again this year. Turkey is exporting limited quantities of durum wheat (needed for making macaroni and spaghetti), which is in short supply throughout the world, and has been importing red wheat from the United States for bread making.

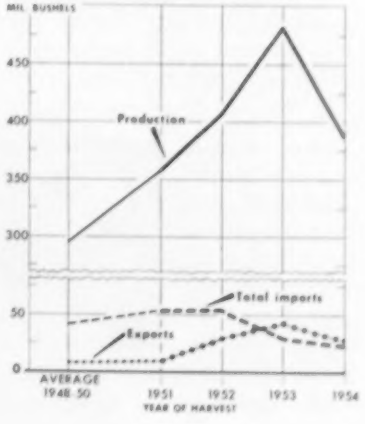
The Turkish Government's 5-year plan calls for increasing wheat production to 378 million bushels by 1960, with exports of 99 million.

Turkey exported no barley in 1954-55 or 1955-56, but its 5-year plan looks toward exports of 16.1 million bushels by 1960.

Outlook

The short-term development programs under way in most Middle Eastern countries look toward increased self-sufficiency in foods. Thus grain production is on the rise throughout the area. In the next 5 to 10 years, Middle Eastern grains—at attractive prices payable in soft currencies—may present an increasing problem to U.S. exporters interested in the European market.

WHEAT IN THE MIDDLE EAST



Foreign Agriculture Personnel Win Superior Service Awards

During the past decade, the Department of Agriculture each year has formally recognized outstanding public service performed by its personnel through honorary awards. Among the recipients of these Superior Service Awards this year are five members of the Foreign Agricultural Service. As given below, their citation follows their names.

Sherwood O. Berg, Agricultural Attaché, Copenhagen: *For initiative in arranging for and assisting in conducting a series of meetings with farm leaders throughout Denmark to promote better understanding of U.S. farm policies.*

Upon arrival in Denmark in 1955, Mr. Berg noted that the Danish press was extremely critical of U.S. agricultural and trade policies. The Danish people, he discovered, knew little about the many constructive measures the United States had taken to improve distribution and create a more balanced production of farm products. The result was something unique in international relations: a series of "grass root" meetings with Danish Provincial farm leaders at which U.S. Ambassador Robert Coe and Mr. Berg talked and answered questions on important agricultural issues.

So successful were these meetings that the Danish Government complimented the Ambassador on the manner in which they were conducted and the Danish press was generous in its praise of this effort to foster mutual understanding.

Helen Francis, Agricultural Economist, Fats and Oils Division: *For her success in writing concise, highly readable technical material on the world production of several agricultural commodities, and for her ability to produce accurate work while constantly meeting deadlines.*

During 1955, Miss Francis prepared 11 summaries of world production of various edible fats and oils. This she did in addition to directing the complex statistical work of her section plus taking on responsibility for the branch's workload during her chief's 4-month absence on foreign assignment.

Miss Francis has the enviable reputation of doing accurate work, in a concise, well-presented manner. Her division receives many letters commending the Foreign Agriculture Circulars she prepares.

Ana M. Gomez, Assistant Agricultural Attaché, Mexico: *For her contribution to the excellent cooperative relationships existing between the Mexican and U.S. Governments on agricultural problems.*

Almost every government official in Mexico including Cabinet members knows Mrs. Gomez and appreciates her ability. Her understanding and loyalty to the United States, her tact, and judgment have inspired their confidence, and enabled her to furnish valuable reports to USDA.

The most recent example concerns Mexican cotton. With the help of Mrs. Gomez, the USDA reached an understanding with the Mexican cotton industry which resulted in Mexico's reducing its cotton plantings thereby aiding the world surplus problem.

Patrick M. O'Leary, Chief, Export Programs Branch: *For vision and leadership in the development and implementation of surplus disposal programs and for an exemplary record of outstanding service in the administration of these programs.*

After the enactment of Public Law 480, there was considerable concern among U.S. and foreign trading circles that the surplus commodities program would be difficult to administer effectively. The vision, leadership, and exceptional ability of Mr. O'Leary calmed these fears. He made it plain to all parties concerned that the regulations were designed to protect their interests. Representatives of foreign governments soon became aware of the benefits obtained by participation in Public Law 480 programs.

Kathryn H. Wylie, Agricultural Economist, Latin American Analysis Branch: *For meritorious service to American agriculture through analysis and interpretation of the resources, production, trade, and potentials of the Latin American economy.*

During the past 15 years, Mrs. Wylie has worked on Latin American problems, in one capacity or another, sometimes as acting head of the Latin American Branch. She has been particularly active in interdepartmental activities in connection with Latin American problems, and has built a reputation for herself and USDA in other agencies and countries for her ability to present and defend the interest of U.S. agriculture.

Mrs. Wylie's skill in presenting her basic knowledge of Latin America as it affects the U.S. farmer has brought her praise from high sources.

WORLD Agricultural Summaries

Hogs. World hog numbers increased 1 percent during 1955 to a new all-time high of 373 million. This total is 27 percent greater than prewar. The increase was around 8 percent in North America, 1 percent in Europe.

Hard Fibers. World production of the three principal hard fibers—sisal, henequen, and abacá—is estimated at 1,512.6 million pounds in 1955 compared with 1,431.1 million in 1954. Most of the increase is in sisal.

Olive Oil. Mediterranean Basin olive oil production from the 1955 crop will be the lowest since 1950. Estimated at 750,500 short tons output will be over a fourth smaller than last year's. Normally 1955 would have been a year of high production.

Prunes. Large crops of dried prunes in Yugoslavia and Argentina accounted for the 20,000-ton increase in the 1955 commercial production outside the United States. Including the United States, prune production for 1955 is estimated at 184,800 short tons, as compared with 206,300 in 1954.

Walnuts. With the two major walnut-producing countries abroad, France and Italy, harvesting bumper crops, the 1955 foreign commercial production was the largest since 1938. Total world production is estimated at 143,500 short tons, the largest since 1952.

Corn. Corn production for 1955 is estimated at 6,190 million bushels, a new record high. This is 650 million bushels above the small 1954 harvest. Most of the increase is in the Soviet Union and the United States. Asia's estimate is below the level for the past 3 years.

Milk. The postwar upward trend in milk production continued in 1955, with output of 356,293 million pounds in 18 primary producing countries, a gain of 0.6 percent over 1954. Increases occurred in North America and Oceania.

Eggs and Chickens. Egg production in 1955 continued the upward trend that has been occurring since World War II, with North America and Europe the principal egg-producing areas. Total chick numbers in the major producing countries changed only slightly from 1954. They were higher in the Netherlands, Canada, the United Kingdom, and Ireland, and lower in Western Germany, Denmark, and the United States.

Peanuts. World production of peanuts in 1955 is placed at a record 12.4 million short tons, an increase of about 3 percent over 1954, and almost one-third above the prewar average. Most significant increase was in the United States, where the crop was up 57 percent over 1954.

Sheep. For the ninth consecutive year, world sheep numbers continued to increase, reaching a total of 910 million head—2 percent above 1954. This increase took place in all major areas of the world except North America. Sheep numbers are particularly high in South America and Africa.

Cotton. World cotton production in 1955-56, now estimated at 39.3 million bales (500 pounds gross weight), is a record high, but only slightly larger than production of 1937-38 and 1954-55. The present estimate is a million bales lower than expected, owing principally to unfavorable weather and insect damage in Egypt, India, and the Soviet Union.

Sugar. World production of centrifugal cane and beet sugar for 1955-56 is estimated at 42.9 million tons, a 7-percent increase over the 1954-55 crop. The greatest increase is in the USSR; the second largest, in Western Europe.

(Based on recent releases. Fuller information available from Foreign Agricultural Service, U.S. Department of Agriculture, Washington 25, D. C.)

Poultry Processing

(Continued from page 13)

a series of holding bins. When the packaged bird reaches the zone for its particular weight, the pan is automatically tipped forward and the package slides into the holding bin of the proper weight class. The dressed birds are taken from these bins and are placed in light, sturdy wooden crates for shipment.

The sorter stands about 7½ feet high and is 36 feet long. Along the length of the machine are 60 separate bins. The machine can sort 1,200-1,500 birds per hour and can handle weights from about 1 pound to 5½ pounds. In the Ringsted operation, chickens and other fowl are packed with fairly close tolerances. Each size group is packed to a maximum range of 3.5 ounces.

One-Sixth of Danish Poultry

Behind the initiative shown at the Ringsted plant are 51,000 farm cooperative members. These farmers, ranging from keepers of tiny barnyard flocks to large commercial producers, are scattered from the small island of Samso in the Kattegat to the island outpost of Bornholm, lying far east in the Baltic Sea. However, most of the producer-members are in the rich agricultural areas of Zealand and Lolland-Falster.

One of the largest and most modern plants in Europe, the Ringsted cooperative processes about one-sixth of all Danish poultry. The plant annually processes about 2 million fowl and rabbits, 80 percent of which is destined for export markets.

Mr. Jorgensen and his fellow cooperators believe they can expand their share of the local and export markets and remain competitive only by operating with the strictest efficiency. Otherwise, they could not turn out the low-priced, high-grade poultry meat that is proving so popular in Denmark and Western Europe today.

PEOPLE IN THE NEWS

Attachés To Get "Reacquainted"

Foreign Agricultural Service has instituted a "refresher" course in U.S. agricultural developments as a first order of business for its agricultural attachés upon their return from foreign assignment. The program will serve to bring attachés up to date on domestic developments that arose during their absence, and enable them to report on foreign situations affecting U.S. agriculture.

First attaché to follow the new schedule will be Dr. Eric Englund, attaché at London since 1952, who arrives this month and expects to return to London in August. Dr. Englund has had a distinguished career as a professor of agricultural economics, USDA economist, Assistant Director of the former Office of Foreign Agricultural Relations, and agricultural attaché to Sweden. During his visit, Dr. Englund will serve as an advisor to the U.S. delegation to the International Sugar Conference in New York, and will confer with farm, trade, and other groups.

Hallowell Appointed Agricultural Attaché

Elmer W. Hallowell, agricultural economist and chief of the Tobacco Analysis Branch of FAS, has been appointed agricultural attaché at Bangkok, Thailand, replacing Graham S. Quate who is retiring.

Thailand in the heart of the Asian rice bowl is considered one of the primary agricultural centers of the Far East. It competes in the world market for rice and represents an important U. S. source of various tropical products. Relatively large amounts of United States flue-cured tobacco are shipped to Thailand each year.

Mr. Hallowell assumes this important post with a broad experience in government and agricultural trade relations. He has served as an international trade economist for FAS, and has held responsible positions with other government agencies.

Attaché Killed in Auto Accident Abroad

Dr. Jacob L. Maxton, agricultural attaché for Southern Rhodesia, Northern Rhodesia, Nyasaland, and Mozambique, died May 16 from injuries received in an automobile accident near Bulawago, Southern Rhodesia.

Though assigned to his post just last December, Dr. Maxton was already well known among agriculturists of Africa. One of them, T. J. Gray, in writing to *Foreign Agriculture* about the accident, said Dr. Maxton was "one of the leading U.S. agricultural personalities of Southern Africa."

Before coming to FAS, Dr. Maxton was for many years agricultural economist for the Virginia agricultural extension service.

Letters

"Let me take this opportunity to congratulate you on the new revitalized "Foreign Agriculture." The magazine is well organized and certainly makes a good impression. . . ."

George J. Dietz, Director,
International Affairs,
American Farm Bureau Federation.

"May I express appreciation of the 'new' editorial approach you are taking in *Foreign Agriculture*. . . . Farmers these days must be aware of the importance of foreign markets if current production problems are to be solved intelligently. Your new editorial policy fits that need very well."

Rich Johnson, Editor,
Arizona Farmer.

"The changes which were made in the format of the recent issue of *Foreign Agriculture* were good and we extend congratulations on the improvement made in an already excellent publication."

J. A. Shellenberger,
Dept. of Flour and Feed
Milling Industries,
Kansas State College.

"The 'new' look of *Foreign Agriculture* impresses us favorably."

Gordon Roth, Editor,
Co-op Grain Quarterly.

"May I compliment you on . . . the 'new' *Foreign Agriculture*. . . . Glad to see you're striking a new note also with the emphasis on foreign trade and markets. Your subscription list should see a boost."

W. H. Riddell,
Dept. Animal and Dairy
Husbandry,
University of Vermont.

". . . the articles in *Foreign Agriculture* are very informative and we would like to reprint them . . ."

Golden Digest, Karachi.

TRADING POST

Mexico's Barter Policy

To increase exports of its products in surplus supply, Mexico uses barter trade deals. It permits exchange of a specified list of products (which changes from time to time) for imports of articles subject to control and for which import permits are not generally granted.

Each barter is a single transaction negotiated between a private Mexican importer-exporter and a private firm or individual in another country, but the transaction must be approved by a Mexican Government agency.

The list of surplus products for which barter deals are approved currently includes the following agricultural and forest products: Cotton, candelilla wax, crude brown sugar, canned pineapple and other canned food products, chickpeas, plywood. A recent barter arrangement involved the exchange of Mexican fluorspar for U. S. wheat held by the Commodity Credit Corporation.

Market Projects Started For Tobacco, Poultry, Eggs

Programs to develop foreign markets for tobacco, poultry, and eggs will be conducted abroad by U.S. trade organizations under agreements with the U.S. Department of Agriculture.

The tobacco project, directed at developing the Japanese market for U.S. grown leaf, will be carried out by Foreign Agricultural Service and representatives of Tobacco Associates, the Burley and Dark Leaf Tobacco Export Association, and the Leaf Tobacco Exporters Association. A cooperative arrangement with the Japanese Monopoly Corporation is being worked out and is expected to give rise to an extensive advertising campaign of those brands of cigarettes that contain U.S. tobacco.

The poultry and egg program provides for a survey on foreign market possibilities, sales promotion and educational campaigns, and other activities. The organizations which will work with FAS are the Poultry and Egg National Board, the National Turkey Federation, the National Broiler Council, the American Poultry and Hatchery Federation, and the American Feed Manufacturers' Association.

Both programs are made possible through the use of foreign currencies available under Title I, Public Law 480. Under this act, a portion of such currencies received in payment for U. S. agricultural commodities may be used to develop new markets abroad.

Ecuador Further Restricts Imports

The Ecuadoran Government announced further restrictions on the importation of a number of products during the month of March. It did so with a view to conserving foreign exchange and correcting the deficit in the country's balance of payments. It temporarily suspended imports of certain products, and prohibited imports of a long list of commodities, adding to those already prohibited. The new list includes, among other things, processed meats, canned vegetables and fruits, fruit juices, jams and jellies, and macaroni and like products. In addition to the quantitative restrictions on imports, a general upward revision was made in the tariff schedule. The new tariff law is designed to increase revenue, provide a more technical and complete system, cut imports of luxury goods, and encourage imports of capital goods.

Mexico May Become Wheat Exporter

Unofficial reports from Mexico indicate another record wheat crop in 1956. The harvest may reach 1.2 million short tons, which will be sufficient to meet the country's requirements and allow a small surplus for export.

A serious transportation problem exists, however, caused by a shortage of railroad cars to carry the wheat from the growing areas to consumption centers. Three or four years ago Mexico was a market for about 400,000 tons of U.S. wheat.

Norway To Liberalize Imports of Canned Fruit

Norway will liberalize imports of canned peaches and pineapple from dollar areas as of October 1. Licenses are expected to be issued after August 1, but customs clearance may not take place before October 1.

Cover Photograph

U.S. Frozen Broilers Sampled at Shipside

Initial shipments of U.S. ready-to-cook poultry being sold to Western Germany under Public Law 480 are sampled at the pier in Morehead City, N. C., by Federal-State Inspector Ralph B. Kelly. With him, *left to right*, are J. D. Holt, port manager, Morehead City; H. W. Ford, agricultural economist, Foreign Agricultural Service; and Cliff D. Carpenter, president, Institute of American Poultry Industries.

The U.S.-German agreement provides for the sale of approximately $1.2 million worth, or about 3 million pounds, of high-quality frozen or canned chickens and turkeys by private U.S. traders to German importers for Deutschemarks.

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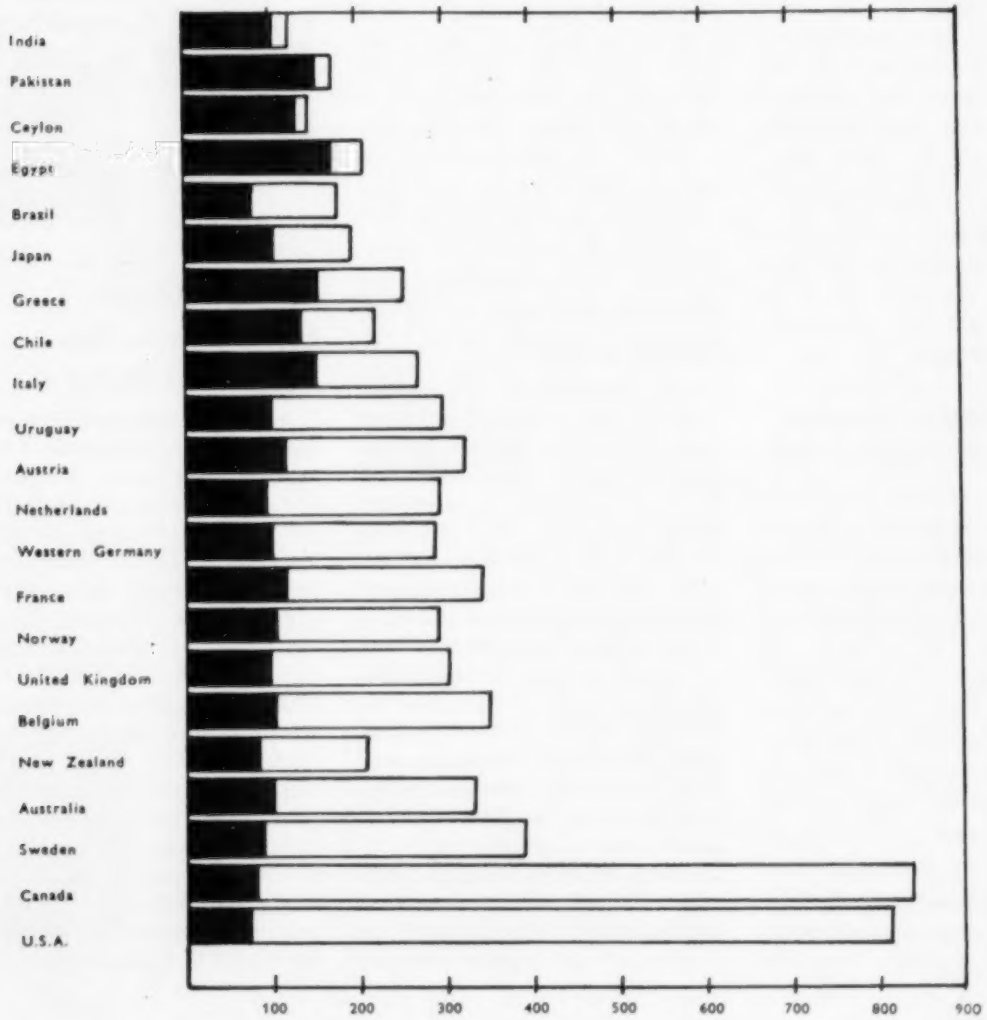
(Countries are arranged in order of per capita national income.)